

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-15. (Canceled)
16. (Withdrawn) A method for processing a record comprising:
determining if the record closes a unit of work;
responsive to the determination that the record closes the unit of work, applying a composition rule to the unit of work; and
wherein the composition rule aggregates and normalizes a plurality of records associated with the unit of work.
17. (Withdrawn) The method of claim 16 further comprising:
receiving a packet containing the plurality of records; and
obtaining the first record in the packet.
18. (Withdrawn) The method of claim 16 further comprising:
determining whether the record opens the unit of work; and
responsive to the determination that the record opens the unit of work, creating a unit of work entry in a unit of work table and labeling a unit of work entry state as open.
19. (Withdrawn) The method of claim 16 further comprising:
determining whether the record references the unit of work with the unit of work state that is closed or close pending; and
responsive to the determination that the record does not reference the unit of work with the unit of work state that is closed or close pending, saving the record in a database.

20. (Withdrawn) The method of claim 16 further comprising: responsive to the determination that the record closes the unit of work, changing the unit of work entry to close pending.
21. (Withdrawn) The method of claim 16 further comprising:
determining whether there is another record in the packet; and
responsive to a determination that there is another record in the packet, repeating the steps in claim 16.
22. (Withdrawn) The method of claim 16 wherein the composition rule comprises steps comprising:
obtaining a record selection rule associated with the composition rule;
applying the record selection rule to the database to obtain the plurality of records; and
aggregating a plurality of measurement values for the records, normalizing a plurality of fields in the records, and normalizing a plurality of attributes in the records to produce a metric.
23. (Withdrawn) The method of claim 22 further comprising: changing the unit of work state to closed.
24. (Withdrawn) The method of claim 23 wherein the record comprises: a fixed number of required fields and a variable number of attributes.
25. (Withdrawn) The method of claim 24 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.
26. (Withdrawn) The method of claim 24 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

27. (Withdrawn) The method of claim 24 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.
28. (Withdrawn) A method for producing a metric comprising:
obtaining a record selection rule associated with a composition rule;
applying the record selection rule to a database to obtain a plurality of records; and
aggregating a plurality of measurement values for the records.
29. (Withdrawn) The method of claim 28 further comprising: normalizing a plurality of fields in the records.
30. (Withdrawn) The method of claim 28 further comprising: normalizing a plurality of attributes in the records.
31. (Withdrawn) The method of claim 28 further comprising: changing a unit of work state to closed.
32. (Withdrawn) The method of claim 28 wherein step of aggregating comprises: summing the measurement values of the records.
33. (Withdrawn) The method of claim 29 wherein step of normalizing comprises: selecting one field from the plurality of fields in the record to represent the plurality of fields.
34. (Withdrawn) The method of claim 30 wherein step of normalizing comprises: selecting an attribute from the plurality of attributes in the record to represent the plurality of attributes.
35. (Withdrawn) The method of claim 28 wherein the record comprises: a fixed number of required fields and a variable number of attributes.

36. (Withdrawn) The method of claim 35 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.

37. (Withdrawn) The method of claim 35 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.

38. (Withdrawn) The method of claim 35 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

39-53. (Canceled)

54. (Withdrawn) A program product operable on a computer comprising:
a computer-usable medium;
wherein the computer usable medium comprises instructions for a computer to perform steps comprising:

instructions for determining if the record closes a unit of work;
responsive to the determination that the record closes the unit of work,
instructions for applying a composition rule to the unit of work; and
wherein the composition rule aggregates and normalizes a plurality of records associated with the unit of work.

55. (Withdrawn) The program product of claim 54 further comprising:
instructions for receiving a packet containing the plurality of records; and
instructions for obtaining the first record in the packet.

56. (Withdrawn) The program product of claim 54 further comprising:
instructions for determining whether the record opens the unit of work; and
responsive to the determination that the record opens the unit of work, instructions for
creating a unit of work entry in a unit of work table and labeling a unit of work entry state as
open.
57. (Withdrawn) The program product of claim 54 further comprising:
instructions for determining whether the record references the unit of work with the unit
of work state that is closed or close pending; and
responsive to the determination that the record does not reference the unit of work with
the unit of work state that is closed or close pending, instructions for saving the record in a
database.
58. (Withdrawn) The program product of claim 54 further comprising: responsive to the
determination that the record closes the unit of work, instructions for changing the unit of work
entry to close pending.
59. (Withdrawn) The program product of claim 54 further comprising:
instructions for determining whether there is another record in the packet; and
responsive to a determination that there is another record in the packet, instructions for
repeating the steps in claim 54.
60. (Withdrawn) The program product of claim 54 wherein the composition rule comprises
steps comprising:
instructions for obtaining a record selection rule associated with the composition rule;
instructions for applying the record selection rule to the database to obtain the plurality of
records; and
instructions for aggregating a plurality of measurement values for the records,
instructions for normalizing a plurality of fields in the records, and instructions for normalizing a
plurality of attributes in the records to produce a metric.

61. (Withdrawn) The program product of claim 60 further comprising: instructions for changing the unit of work state to closed.
62. (Withdrawn) The program product of claim 61 wherein the record comprises: a fixed number of required fields and a variable number of attributes.
63. (Withdrawn) The program product of claim 62 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.
64. (Withdrawn) The program product of claim 62 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.
65. (Withdrawn) The program product of claim 62 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.
66. (Withdrawn) A program product operable on a computer comprising:
a computer-usable medium;
wherein the computer usable medium comprises instructions for a computer to perform steps comprising:
instructions for obtaining a record selection rule associated with a composition rule;
instructions for applying the record selection rule to a database to obtain a plurality of records; and
instructions for aggregating a plurality of measurement values for the records.
67. (Withdrawn) The program product of claim 66 further comprising: instructions for normalizing a plurality of fields in the records.

68. (Withdrawn) The program product of claim 66 further comprising: instructions for normalizing a plurality of attributes in the records.
69. (Withdrawn) The program product of claim 66 further comprising: instructions for changing a unit of work state to closed.
70. (Withdrawn) The program product of claim 66 wherein step of aggregating comprises: instructions for summing the measurement values of the records.
71. (Withdrawn) The program product of claim 67 wherein step of normalizing comprises: instructions for selecting one field from the plurality of fields in the record to represent the plurality of fields.
72. (Withdrawn) The program product of claim 68 wherein step of normalizing comprises: instructions for selecting an attribute from the plurality of attributes in the record to represent the plurality of attributes.
73. (Withdrawn) The program product of claim 66 wherein the record comprises: a fixed number of required fields and a variable number of attributes.
74. (Withdrawn) The program product of claim 73 wherein the required fields comprise: a resource identification, a user identification, a measurement value, a unit of work identification, and a close unit of work flag.
75. (Withdrawn) The program product of claim 74 wherein each attribute comprises a name and a value; wherein the name describes a type of attribute; and wherein the value is a measurement of the attribute.
76. (Withdrawn) The program product of claim 74 wherein the required fields are stored in a record table in the database; wherein the attributes are stored in an attribute table in the data; and wherein a key correlates the required fields to the attributes.

77. (Canceled)

78. (Currently Amended) A computer implemented method for processing a plurality of data into an output summarizing a consumption of a resource for a particular unit of work in an on-demand service environment, comprising:

gathering, by an agent, a plurality of usage data from a plurality of users consuming a plurality of computer resources in an on demand service environment, the on demand service environment providing a plurality of computer services available through a web service interface, wherein the agent is connected to the plurality of users, the web services interface, and the processing engine by a network, and wherein each of the plurality of usage data measures a consumption of a computer service resource in the on-demand service environment one of the plurality of computer services;

sending, by the agent, the plurality of usage data to a database through [[a]] the web services interface;

processing, by the processing engine, the plurality of usage data into a [[raw]] plurality of records, each of the plurality of records having a required information section and an attributes section;

saving, by the processing engine, the [[raw]] plurality of records into a record table, an attribute table, and a unit of work table, wherein the record table is linked to the attribute table by a first key, and the record table is linked to the unit of work table by a second key;

responsive to a flag in a required field of a record determining when a particular unit of work's status changes, changing, by the processing engine, a status of a particular unit of work to a closed status in the unit of work table, and responsive to changing the status of the particular unit of work [['s]] status changing to the closed status in the unit of work table, identifying, by the processing engine, a plurality of [[raw]] associated records, wherein an associated record is a record associated with the unit of work;

obtaining a rule for each of the plurality of raw records;

calculating, using the rule aggregating, normalizing, and algebraically composing, by the processing engine, for each of the plurality of [[raw]] associated records to produce a metric; the output summarizing [[the]] a consumption of the computer resource for the particular unit of work; and

storing, by the processing engine, the [[output]] metric with the [[raw]] records in [[the]] a database, wherein the format of a first format of the [[output]] metric is the same as a second format of and the [[raw]] records are configured to be stored and retrieved using the same schema, and wherein the metric is configured to be used in an accounting, an auditing, a billing, or an optimization process.

79. (New) An apparatus comprising:

an agent connected to a plurality of users, a web services interface, and a processing engine by a network, wherein the agent gathers a plurality of usage data from the plurality of users, the plurality of users consuming a plurality of computer resources in an on demand service environment, the on demand service environment providing a plurality of computer services available through the web service interface, wherein each of the plurality of usage data measures a consumption of a computer service resource in one of the plurality of computer services;

wherein the agent sends the usage data to a database through the web services interface;

wherein the processing engine processes the usage data into a record having a required information section and an attributes section;

wherein the processing engine saves the record into a record table, an attribute table, and a unit of work table, wherein the record table is linked to the attribute table, and the record table is linked to the unit of work table;

wherein, responsive to a flag in a required field of a record, the processing engine changes a status of the particular unit of work to a closed status in the unit of work table, and responsive to the status of the particular unit of work changing to the closed status in the unit of work table, the processing engine identifies a plurality of associated records, wherein an associated record is a record associated with the unit of work;

wherein the processing engine aggregates, normalizes, and algebraically composes the plurality of associated records to produce a metric summarizing a consumption of the computer resource for the particular unit of work; and

wherein the processing engine stores the metric with the records in the database, wherein the metric and the records are configured to be stored and retrieved using the same schema, and wherein the metric is configured to be used in an accounting, an auditing, a billing, or an optimization process.

80. (New) A computer program product, comprising:

a computer readable medium;

a first plurality of instructions stored in the computer readable medium, the plurality of instructions configured to cause an agent connected to a plurality of users, a web services interface, and a processing engine by a network to:

gather a plurality of usage data from the plurality of users, the plurality of users consuming a plurality of resources in an on demand service environment, the on demand service environment providing a plurality of services available through the web service interface, wherein each of the plurality of usage data measures a consumption of a computer service resource in one of the plurality of computer services; and

send the usage data to a database through the web services interface;

a second plurality of instructions configured to cause the processing engine to:

process the usage data into a record having a required information section and an attributes section, to save the record into a record table, an attribute table, and a unit of work table, wherein the record table is linked to the attribute table, and the record table is linked to the unit of work table, and responsive to a flag in a required field of a record;

change a status of the particular unit of work to a closed status in the unit of work table, and responsive to the particular unit of work's status changing to the closed status in the unit of work table;

identify a plurality of associated records, wherein an associated record is a record associated with the unit of work;

aggregate, normalize, and algebraically compose the plurality of associated records to produce a metric summarizing a consumption of the computer resource for the particular unit of work; and

store the metric with the records in the database, wherein the metric and the records are configured to be stored and retrieved using the same schema, and wherein the metric is configured to be used in an accounting, an auditing, a billing, or an optimization process.